

# PSYCHOLOGY TEACHERS UPDATE

NO.17 - JANUARY 2008

ANOMALISTIC PSYCHOLOGY

KEVIN BREWER

ISSN: 1478-4548

Orsett Psychological Services  
PO Box 179  
Grays  
Essex  
RM16 3EW

[orsettpsychologicalservices@phonecoop.coop](mailto:orsettpsychologicalservices@phonecoop.coop)

## PSYCHOLOGY TEACHERS UPDATE

Psychology Teachers Update is designed to give a brief overview of the main developments in the different areas of psychology. There is a proliferation of journals and research, and it is very difficult to keep abreast of the latest trends, particularly in the many and varied areas of psychology.

Each issue of Psychology Teachers Update will cover a particular topic, and summarise the main research directions and findings in the last ten to fifteen years approximately. The aim is to give teachers the feel of what is happening in that area of psychology.

Psychology Teachers Update will appear three times a year in January, May, and September. Subscription costs £20 per year for three issues (or £7 each).

Forthcoming topics include practical applications; behavioural genetics; schizophrenia; and critical psychology and psychiatry.

### AUTHOR

Kevin Brewer

Kevin is an experienced teacher of A level psychology since the 1980s. He has taught and examined with many of the different exam boards. He is a social psychology tutor with the Open University.

Author of three books published by Heinemann: "Psychology and Crime" (2000) and "Clinical Psychology" (2001) as sole author, and "Heinemann Psychology AS for AQA A" (2003) by David Moxon, Kevin Brewer, and Peter Emmerson. Kevin has published other material himself.

A complete list is available at  
<http://lazybase.com/kmbwritings> or  
<http://kmbpsychology.jottit.com>

## PAST ISSUES

No.1 - September 2002: Memory

No.2 - January 2003: Evolutionary Psychology

No.3 - May 2003: Biological Psychiatry

No.4 - September 2003: Social Constructionism

No.5 - January 2004: Atypical Development

No.6 - May 2004: Issues in Health Psychology

No.7 - Sept 2004: Developmental Psychology

No.7 Supplement (No.1): Child Physical Abuse,  
Neglect and Disadvantage

No.8 - January 2005: Children in Court

No.9 - May 2005: An Introduction to Psychoneuroimmunology

No. 10 - September 2005: Qualitative Psychology and  
Research Methods

No.11 - January 2006: Altruism and Helping Behaviour

No.12 - May 2006: Sleep

No.13 - September 2006: Psychology of Ageing and Older  
Adults

No.14 - January 2007: Social Psychology

No.14 Supplement (No.2): Social Identity Theory in  
Recent Years

No.15 - May 2007: New Theoretical Ideas

No.16 - September 2007: Addiction

No.17 - January 2008: Anomalistic Psychology

## CONTENTS

	Page Number
INTRODUCTION	5
BELIEF IN PSYCHIC ABILITY	5
Misattribution hypothesis	6
PSYCHOLOGY OF THE PARANORMAL	11
Observing and recalling a paranormal event	11
Verbal suggestion	14
Affirmative bias	16
SCIENTIFIC STUDY OF THE PARANORMAL	17
Mediumship	18
Experimenter effects	21
Explaining the paranormal scientifically	22
RELIGIOUS BEHAVIOUR	23
Religious beliefs	23
Religious experience	25
REFERENCES	27
INFORMATION	32

## INTRODUCTION

French (2003) noted that:

In all cultures throughout the world, there have always been occasional reports of strange, even miraculous, events. Today such events are often labelled as 'paranormal' to indicate that, if they really did occur as reported, conventional science is incapable of explaining them. Such reports have always aroused intense controversy. Believers in the paranormal see them as proof of the limit of the scientific worldview, whereas sceptics often dismiss them as being the result of fraud, stupidity or madness (p153).

The key term here is "intense controversy". Events classed as anomalous, psychic, paranormal or whatever term used produce responses in individuals far greater than in most other areas of psychology. The psychologist working in the area of anomalous experience or parapsychology has to face scrutiny far greater than a social psychologist, say, because of the intensity of the emotions involved here.

Anomalistic psychology (and parapsychology) seek to find a rational or scientific explanation for events that appear as outside scientific laws. This is done by the application of general psychological principles to such events.

Traditionally parapsychology has concentrated upon Extra-Sensory Perception (ESP) (including telepathy, clairvoyance and precognition) and Psycho-Kinesis (PK). Anomalistic psychology widened this field of study to include anything outside of "normal science", like alien abduction, as well as unconscious awareness, dreams, and meditation.

## BELIEF IN PSYCHIC ABILITY

Irwin (2004) divided psychic ability into two:

### i) Extra-sensory Perception (ESP)

"[T]he apparent ability to receive information via a channel of communication not presently recognised by mainstream science" (Wiseman and Watt 2006). It includes clairvoyance ("in which the information was not known to anyone else"), telepathy ("in which the information was known to another person"), and precognition ("in which the information relates to a future event" Wiseman and Watt 2006).

## ii) Psychokinesis (PK)

"[T]he apparent ability to influence physical objects or biological systems using unknown means" (Wiseman and Watt 2006). It includes the levitation of objects, influencing the rolling of numbers on dice, and paranormal healing.

For convenience researchers tend to measure belief in psychic ability using psychometric questionnaires like:

a) Australian Sheep-Goat Scale (ASGS) (Thalbourne and Delin 1993)

Eighteen items including "I am completely convinced that ESP exists" and "I believe that some people can contact the spirits of the dead". The name of the scale comes from Schmeidler (1945), who using a biblical reference, called believers in ESP as "sheep" and disbelievers or non-believers as "goats";

b) Paranormal Belief Scale (PBS) (Tobacyk and Milford 1983)

Twenty-six items and a seven-point Likert scale: eg "mind-reading is not possible" and "some psychics can accurately predict the future".

Wiseman and Watt (2006) distinguished three strands of explanation for why people believe in psychic ability:

i) Motivation - individuals are motivated to hold such views as part of a religious or philosophical world-view, or as part of a need for control;

ii) Genuine - individuals believe in psychic ability because it actually exists and they have experienced it;

iii) Psychology - the psychology of certain individuals means that they "misattribute paranormal causation to normal experience". It is this area that interests psychologists most.

## MISATTRIBUTION HYPOTHESIS

Wiseman and Watt (2006) detailed four processes that make up the tendency to "misattribute psychic causation to normal experiences": general cognitive abilities, probability misjudgements, propensity to find correspondences in distantly related material, and fantasy proneness.

## 1. General cognitive abilities

One suggestion for the belief in psychic ability is that believers have poorer general cognitive abilities (eg intelligence, reasoning) than non-believers.

The results of studies here are mixed: for example, some research finds a negative correlation between intelligence and psychic belief, others no relationship, and others still a positive relationship.

Maybe psychic belief relates to specific aspects of intelligence, like critical thinking, rather than overall intelligence. Here there is a "confused" pattern of findings again. For example, Roe (1999) asked believers and non-believers to evaluate mock scientific papers on ESP, and found few differences between both groups in terms of critical evaluation. They also both rated papers giving opposing views to their own as less competently performed research.

Wiseman and Watt (2006) concluded that, "with the possible exception of the relationship between belief in psychic ability and performance on syllogistic reasoning tasks, the existing literature does not support the notion that believers and disbelievers in psychic ability differ in their levels of general cognitive functioning" (p327).

## 2. Probability misjudgements

This is the miscalculation of probabilities of behaviour happening and attribution of a psychic causality to it. The best known example in everyday life is thinking about a particular person, and soon afterwards you receive a phone call from them. The less likely that person is to call (ie out of contact friend), then the more likely is the attribution of a psychic explanation for certain individuals.

Probability misjudgement is tested by asking participants to estimate the likelihood of something happening, like rolling ten sixes in a row on a dice. Believers in psychic ability are more likely to underestimate the probability of such events.

So, for example, if you believe that such an event occurs infrequently (eg 1 in one million chance), and it happens, there is a tendency to look for explanations beyond the normal range. But if the event is believed to happen more frequently (eg 1 in 1000 chance), it will be viewed differently when it occurs.

Though these types of studies are artificial, there is still a pattern of non-believers being more accurate

at estimating the probability of events happening.

### 3. The propensity to find correspondence in distantly related material

This is the tendency to link two distantly (or unrelated) events together. It is a general tendency to find overall patterns and meanings in random events.

In terms of experiments, believers are more able to find patterns in images of random dots (eg Blackmore and Moore 1994). Believers are also more self-rated creative (Thalbourne 1998). Such individuals are finding patterns in the world quite easily, and it may be due to right hemisphere over-activation in the brain (eg Pizzagelli et al 2000: EEG measures).

However, Wiseman and Watt (2006) admitted that this does not mean that believers are wrong because "it could be argued that disbelievers are experiencing genuine psychic phenomena but failing to notice them because of their inability to detect meaningful connections" (p329).

Coming from an entirely different viewpoint, Chadwick would endorse this statement. He has written about psychosis as a state of consciousness allowing for access to the paranormal: "...gives one the sense of accessing 'the elsewhere'.. a glimpse into the deep structure of reality.." (1997 p3). Psychosis as "cosmic consciousness" also allows for creativity. Overall such an individual is able to make connections, to detect synchronicity (patterns of events) in life that non-psychotics cannot.

### 4. Fantasy proneness

This is the "propensity to become so deeply absorbed in a fantasy that it is difficult to know whether the experience is purely imaginary or caused by an external source" (Wiseman and Watt 2006). It was first identified by Wilson and Barber (1983) in relation to hypnotisability.

Fantasy proneness can be measured as hypnotisability, suggestibility or absorption in an activity. The general pattern is a positive correlation between these aspects of fantasy proneness and belief in psychic ability.

What is the relationship between fantasy proneness and paranormal experience and beliefs? A sceptical view is that fantasy proneness causes the latter (ie paranormal experiences are imagined). Proponents of the paranormal suggest the opposite relationship: "fantasy



proneness may engender paranormal beliefs, which in turn may be conducive to parapsychological experience" (Irwin 1991).

Wiseman et al (2003), in a mock seance, found that believers were more likely to recall the table levitating in response to the medium's suggestion.

Table 1 summarises the relationship between belief in psychic ability and the four processes of misattribution.

<u>PROCESS OF MISATTRIBUTION</u>	<u>BELIEF IN PSYCHIC ABILITY</u>
General cognitive abilities	No relationship
Probability misjudgement	Less accuracy at estimating probability of events happening
Propensity to find correspondence in distantly related material	Strong ability to find patterns and relationships between events
Fantasy proneness	More fantasy prone on number of measures

Table 1 - Relationship between belief in psychic ability and processes of misattribution.

Wiseman and Watt (2006) made a number of observations about the differences between believers and non-believers in psychic ability, particularly where studies have found inconsistent results:

i) Where studies find consistent results, the size of the difference may not be that large;

ii) Many of the studies find correlations only, and thus it is not possible to establish the nature of causation: for example, does a belief in psychic ability cause fantasy proneness or vice versa?

But research on alleged hauntings has found the direction of the relationship. The believer will initially perceive ambiguous stimuli in a particular way, and this sets the pattern for attributing future stimuli as supporting evidence (Houren et al 2002).

iii) The studies have variables that need controlling - nature of the task, the measurement of psychic belief used, the context of the research (ie lab or field), and the belief of the researcher. Irwin (1993), for example, noted that psychic sceptical researchers often found negative correlations between belief in psychic ability and general intelligence. This would be due to "demand

characteristics";

iv) The different measures of psychic belief do not necessarily measure the same thing. For example, there is debate over how many factors (2, 5 or 7) underlie the PBS (Wiseman and Watt 2006).

Furthermore, is belief in psychic ability a single dimension or made up of several components (or sub-scales)?;

v) It could be that belief in psychic ability is due to a combination of factors: eg fantasy proneness and need for control as a result of childhood trauma (Lawrence et al 1995).

Generally research on belief in the paranormal, and, in particular, superstition tends to view them negatively, as, for example, a need of anxious individuals to have cognitive control over their environment. But Wiseman and Watt (2004) preferred to look at "positive" superstitions as psychologically adaptive rather than maladaptive behaviour.

"Negative" superstitions are associating certain items with bad luck, like the number 13 or breaking a mirror, while "positive" superstitions are behaviours to bring good luck (eg carrying a charm).

Wiseman and Watt used nearly 45000 participants in an Internet-based study on the two types of superstition, and a self-rating of anxiety ("I tend to worry about life" rated from 1-5). "Positive" superstitions were endorsed more than "negative" ones generally, and women were significantly more superstitious than men. The higher the anxiety rating, the greater the endorsement of both types of superstition.

In a more detailed second study with 153 volunteers using a postal questionnaire, the researchers found a small relationship between "positive" superstition and high life satisfaction, and both types of superstition and low life satisfaction. Wiseman and Watt speculated that belief in "positive" superstitions may link to self-efficacy and optimism, and this is why it is adaptive.

## PSYCHOLOGY OF THE PARANORMAL

Anomalistic psychology applies research and ideas about psychological processes to explain paranormal events and experiences. These include eyewitness recall and accuracy.

### OBSERVING AND RECALLING A PARANORMAL EVENT

Leaving aside deliberate lying, it is the reports in good faith from observers of paranormal events that are interesting. The area of psychological knowledge applied here relates to memory and eyewitness testimony.

French (2003) divided the relevant evidence on memory into four situations.

1. Eyewitnesses report a "normal" event, but disagree over the details (normal eyewitness testimony).

The classic work on eyewitness testimony by researchers like Elizabeth Loftus (eg 1979) has shown that eyewitness recall is not a videotape. It is a constructive process which is less accurate for peripheral details of an event. Also recall is greatly influenced by what we expect to see.

The accuracy of eyewitness memory is not aided by poor viewing conditions, altered states of consciousness of the viewer, and the ambiguous nature of the events (French 2003).

2. Eyewitnesses report a paranormal event, but disagree over the details.

In this situation, an event occurs that appears to be paranormal, and the disagreement of the witnesses is whether it was caused by paranormal ability. The disagreement revolves around belief and expectation.

For example, Davey in the 19th century recreated mediumistic behaviour by trickery in front of a group of believers. He asked them to write down afterwards what had happened. The reports omitted details, added other information, and changed the order of some events (Hyman 1985). Very similar to Bartlett's (1932) "efforts after meaning" from the research with the "War of the Ghosts" story.

Recall of events adjusted to make sense has been subsequently demonstrated in more recent parapsychology experiments. Wiseman and Morris (1995), for example, have shown that believers in the paranormal failed to recall important details in a key-bending demonstration, like

the key was not always in view (which is when it was switched for a bent one by the magician doing the demonstration).

3. There is doubt as to whether a "normal" event occurred.

Research on eyewitness memory has found cases of false memories of events (even when there has been no attempt to implant them by another person).

For example, Pynoos and Nader (1989) investigated recall of a shooting at a US primary school: "One girl initially said she was at the school gate nearest the sniper when the shooting began. In truth she was not only out of the line of fire, she was half a block away" (p238). The accuracy of a description of an event does not necessarily equal that the event happened. This has a disturbing implication for the confidence of our recall of autobiographical memories.

Research by Wilson and French (2006) for real news events, like the nightclub bombing in Bali, has found that believers in the paranormal are more susceptible to non-paranormal false memories than non-believers.

4. A false memory has been deliberately implanted by another person.

Psychological experiments have shown how an entirely fictional memory can be implanted by researchers and recalled as real.

Deese (1959) first showed this effect in a simple way. Participants were given related words to recall about a topic like bullet, trigger, and barrel, but not the word gun. Recall of gun was common. Elizabeth Loftus expanded the size of the false memory with misleading questions about a video of a traffic accident (eg presence of a broken headlight when none).

In Loftus and Pickrell (1995), a quarter of participants were able to recall details of being lost in a shopping centre as a child when it had not happened. Orne (1979) showed a similar process using hypnosis.

Recently, Loftus (2001) argued that strongly imagining an event can produce false recall at a later date (known as "imagination inflation").

But how does this happen? Hyman and Kleinknecht (1999) described three processes in the development of false memories:

i) Presented information is assessed in terms of plausibility, and this is influenced by the source of the information and prior beliefs;

ii) The memory is constructed from beliefs, personal experience, and the demands of the situation;

iii) There is a source monitoring error. This is the failure to distinguish that the memory comes from imagination, for example, rather than from a real event. This could also be called a reality monitoring failure. Hypnosis can also reduce this ability. Mazzoni et al (2001) viewed the third stage slightly differently as the interpretation of thoughts and fantasies as actual memories of the event.

French (2003) gave the example of this process in relation to hypnotic past-life regression. Iverson (1977) described the work of a hypnotherapist called Arnat Bloxham, and one patient, Jane Evans, who recalled six past lives. In one past incarnation she was the maid to a named 15th century rich merchant. Iverson reported clear details about this time remembered by Evans.

Harris (1986) reanalysed the data, and found key details missing. For example, Evans reported the merchant as single when in fact he was married with five children. Investigating further, Harris found that a historical novel had been written about this merchant, in which he was single, and this was what Evans was recalling under hypnosis. She was genuine in her recall, but had cryptomnesia (no conscious recall of information).

The source monitoring error was recalling the novel read as if the events happened to her. "It is argued that an individual can store away information from a variety of sources during his or her life, such as from novels, films, history books, or whatever, without later being aware of the source of the information. When the information is later recalled under hypnosis, perhaps elaborated upon by the individual's own fantasies, the memories can be taken to be veridical" (French 2003 p164).

Clancy et al (2002) used the single word technique to produce false memories in participants who reported being abducted by aliens. Individuals with conscious memories of being abducted were more susceptible to false recall here than the control group and individuals who believed they had been abducted but had no conscious memory of it. However, French et al (2005 quoted in French and Wilson 2006) did not replicate this finding, though individuals reporting alien abduction were more fantasy prone, and had a tendency to hallucinate, for example, than the controls.

## VERBAL SUGGESTION

Wiseman and Greening (2005) investigated the ability to bend metal objects, like spoons, by thought alone - known as psychokinetic metal bending (PKMB). As well as usually holding the object to make it bend, there is a phenomenon referred to as the "after-effect". This is when the object is placed on a table and continues to bend in a small way. Even if the initial metal-bending was by trickery, how does the after effect work? The answer could be verbal suggestion.

Wiseman and Greening's experiments set out to test this possibility. Forty-six psychology undergraduates at the University of Hertfordshire were recruited for the first experiment. The participants watched a two-minute video of the PKMB of a key in the hands of a performer (unknown to the participants a stage magician). After bending the key, it was placed on the table, and the performer said that it was still bending (suggestion condition) or not (no-suggestion condition). The presence of suggestion or not was the independent variable.

Among the questions asked to the participants after the video, the dependent variable was the statement: "After the key was placed on the table, it continued to bend". This was measured on a seven-point scale from one ("definitely no") to seven ("definitely yes"). The participants were also asked to rate their level of confidence, and their belief in the paranormal on the six-item Belief in Paranormal Questionnaire (BPQ).

The mean scores of the participants in the suggestion condition was significantly higher than the no-suggestion condition for the key continuing to bend on the table (table 2).

	<u>SUGGESTION CONDITION</u>	<u>NO-SUGGESTION CONDITION</u>
Mean scores on question about key bending on table	3.87 (3.90)	1.87 (2.02)
%/Number scoring 5, 6, or 7 (ie still bending)	39.13/9 of 23 (36.54/19 of 52)	4.35/1 of 23 (0)

Numbers in brackets are scores from second experiment  
(After Wiseman and Greening 2005)

Table 2 - Suggestion and PKMB after-effects in two experiments.

There was no difference in the confidence levels of

the different groups (both averaged 5.7 out of 7). There was no significant difference between belief in the paranormal and perceiving the key continuing to bend. This was unexpected, and contrary to earlier research (eg Wiseman et al 2003).

Experiment 2 replicated the first experiment in many ways. This time one hundred psychology and cognitive science undergraduates followed the same procedure as above, and similar findings occurred (table 2).

In particular this experiment wanted to know if participants remembered that the performer had made a verbal suggestion of the key continuing to bend in the suggestion condition. So these participants were asked to write an open-ended description of the video as well as the other fixed-choice questions.

Overall 56% (29) of the participants reported the performer's suggestion, but only two of those reported the key as continuing to bend. The majority of participants who reported the key as continuing to bend (87.5%) did not remember the verbal suggestion of the performer.

The implication of this finding is that "eyewitness reports of allegedly anomalous events may omit the information needed to properly assess some of the potential normal explanations that may account for such events" (p125).

There are two possible explanations for this finding proposed by the researchers:

- a) Individual's attention is focused upon the key and other information is ignored;
- b) Individuals are aware that reporting the suggestion by the performer may make their eye-witness testimony of the key-bending seem less reliable.

In the first explanation, individuals do not hear the suggestion, while in the second, they choose to downplay it.

"Memory conformity" has been noted in situations with multiple witnesses. This is where the testimony of one eyewitness influences the testimony of another eyewitness (Gabbert et al 2003). Wilson and French (reported in French and Wilson 2006) added a stooge condition to a replication of Wiseman and Greening (2005) to test for memory conformity. The stooge reported either seeing the key bending or not, and it influenced the participants' recall.

Post-event suggestion can also play a role. Wilson and French (reported in French and Wilson 2006) showed participants a video clip of a psychic giving a reading,

and then the sitter comments separately on the accuracy of the reading. This latter section was varied to include one accurate or inaccurate fact for the reading (ie mother's name as Sheila). Memory for the reading was distorted by the post-reading comments of the sitter for both believers and non-believers in psychic ability. Non-believers had a more accurate recall where there was no post-reading section on the video (ie control group).

#### AFFIRMATIVE BIAS

Blagrove et al (2006) investigated precognitive dreams (ie dreams that predict the future) among 386 participants approached in a UK city centre shopping area. A number of measures were taken:

- Educational level;
- "Have you ever had a dream that seems to predict an event in the future?"; if yes, how often, and then offered 6 choices to explain them from "It's always chance or coincidence or some other natural explanation" to "It's always something paranormal that can't be explained naturally";
- Participants were asked three questions about themselves (T) or to estimate the probability in one hundred people (O): scar on left knee, back pain at moment, and currently owning a cat;
- Probability questions: (a) which is the best way to roll 10 sixes either one dice ten times, ten dice at once, or no difference (correct answer); (b) does letting someone else choose the lottery numbers increase, decrease or make no difference (correct answer) to the self choosing them in relation to winning.

Just over 46% of participants reported a precognitive dream (no gender difference), and about half of them had had four or more. Only a quarter of dream experiencers explained them by paranormal means. Those who experienced them more often were more likely to give paranormal explanations for them.

There was no significant relationship between precognitive dream experience and correct/incorrect answer to dice question, but increasing number of such dreams significantly related to incorrect answer on the lottery question.

More precognitive dreams significantly linked to yes to three questions in T group, but not to inaccurate estimates of likelihood in O group. There were limited differences overall due to educational level.

The authors concluded that the "most striking findings from the study were that people who have had one or more precognitive dreams, and people who have



paranormal beliefs about such dreams, were more likely to answer the three personal, apparently factual, questions affirmatively" (p79).

But why? It could be that there are lifestyle differences between believers and non-believers in the paranormal. The authors preferred the explanation of an affirmative bias (or inclusive categorization) among believers. This is the tendency to look for ways to include the self in a category: for example, "The question about having a cat might be interpreted to include ever having had a cat or knowing a neighbour's cat..".

Without making a conscious decision, individuals with affirmative bias are wanting to find confirmatory evidence, particularly to vague questions. Thus such individuals would be more likely to find confirmation in their memories and say yes to a question about having dreams that predict the future.

## SCIENTIFIC STUDY OF THE PARANORMAL

Researchers are influenced by poor methodological studies into anomalous events, which believers (and the media) seize upon as evidence of the paranormal. One classic example is an US survey of alien abductions (Hopkins et al 1992) which reportedly claimed that 3.7 million Americans had had such an experience.

The study was a questionnaire given randomly to over 5000 American adults. The focus was on unusual experiences, and asked as "How often has this experience happened to you?". The key items (paraphrased) were:

- Waking up paralysed with the sense of something in the room;
- Experiencing a lost period of time (ie cannot remember time passing);
- Feeling of flying through the air (and not knowing why);
- Seeing unusual lights in a room (and not knowing why);
- Finding unexplained scars on your body.

Small numbers of respondents said "yes" to each question - 18%, 13%, 10%, 8% and 8% respectively - and 2% said "yes" to all five. Hopkins et al interpreted an affirmative response to all the items as a sign of alien abduction. The 2% figure was extrapolated to the total US population to give 3.7 million.

The interpretation of the data by the researchers was "totally unjustified" (French 2001). Just to mention two problems. Firstly, the items above could be symptoms

of something other than alien abduction, and it is an assumption to say that all experiencers of those events were abducted. Secondly, it has been estimated that over three hundred Americans every day would have to be abducted if 3.7 million in total had been. This is between 1961 (the first reported case) and 1991 (survey date) (Klass 1997).

## MEDIUMSHIP

This is the ability to contact the "spirit world" (deceased) and receive information from there. Opinion polls show that belief in such abilities is significant: eg 30% of Americans (O'Keefe and Wiseman 2005). While nearly 10% of Britons regularly seek or have sought guidance from mediums (Roe 1998).

Research into mediums has a long history beginning in the 19th century where investigators attended seances and wrote down what the mediums said. Much of this work was in favour of the mediums as genuine, and did not explore the psychological stratagems, like very general statements or shrewd guesswork, that could have been used by the mediums (O'Keefe and Wiseman 2005). Subsequent research has attempted to be more rigorous, and to deal with methodological problems.

O'Keefe and Wiseman (2005) outlined three main methodological issues in testing mediums.

### i) Potential sensory leakage

Mediums can gain information about their sitters in non-paranormal ways varying from social interaction (eg facial responses of sitters) and impressions formed from sitters' appearance through to employing staff to find information beforehand.

Good methodology should stop information being discovered beforehand by keeping the sitters' identity hidden, and avoiding non-verbal cues by placing participants in separate room.

### ii) Use of general statements by the medium

Forer (1949) coined the term, "Barnum effect" for personality statements that were general (and usually positive) that individuals believed applied to themselves (eg "You like people, but you also like to be alone sometimes").

Even statements that do not appear obviously general can be used by fake mediums. For example, in a large survey using specific statements, over a quarter of

respondents said yes to "someone in my family is called Jack" (Blackmore 1994 quoted in O'Keefe and Wiseman 2005).

One accepted way to overcome this problem is the "Pratt and Birge procedure" (Pratt and Birge 1948). They asked sitters to rate the accuracy of reading specifically for them ("target reading") and the accuracy of readings for other sitters as applied to themselves ("decoy reading"). If general statements are being used by the medium, there will be little difference in the rating of accuracy between their own and others' readings.

### iii) Judging of mediums' accuracy

Sitters' rating of accuracy of the medium can be influenced by a number of factors like the belief of the sitter or selective recall. Giving the sitters "blind" readings can help. This is where the reading may be for them or for another person. To make the judging "blind" means that cues, like names or time/day of reading must be removed.

O'Keefe and Wiseman (2005) set out to test professional mediums using a methodology that incorporated the issues raised above. Five mediums (3 female, 2 male) were recruited through the Spiritualists Nationalist Union (SNU) and five male sitters who were university students or staff.

The mediums and sitters did not meet, and they were kept in separate sound-proof studios to avoid sensory leakage. Each medium produced five videotaped readings lasting up to one hour each. One experimenter met the mediums and was blind to the sitters, and the other experimenter met the sitters and was blind to the mediums.

Each videotaped reading was transcribed into a series of statements for scoring, and any cues as to the sitter were removed. Each sitter independently rated all statements of all five readings on a scale of 1 (not applicable) to 7 (very applicable).

After statistical analysis the results were not significant. In other words, there was no significant difference in accuracy ratings for a sitter's own reading and that of the other sitters. In terms of choice of most accurate reading from five mediums, only one occasion out of 25 did a sitter see their own reading as most accurate (sitter B with medium 2) (table 3). Mediums who made general statements, like the grandfather being tall and balding, were rated as most accurate by all sitters at the same time.

<u>SITTER</u>	<u>MEDIUM</u> <u>1</u>	<u>MEDIUM</u> <u>2</u>	<u>MEDIUM</u> <u>3</u>	<u>MEDIUM</u> <u>4</u>	<u>MEDIUM</u> <u>5</u>
A	E	B	B	E	C
B	E	OWN	D	E	A
C	A	D	D	E	A
D	A	A	B	A	C
E	D	D	D	A	A

(After O'Keefe and Wiseman 2005)

Table 3 - Sitter's rating as most accurate reading for self.

The focus of the above research is establishing the accuracy of mediums as true or false in their abilities. Wooffitt (2001) took a different approach using conversational analysis.

He concentrated upon how mediums established their credibility through the language used in the same way as any witness to an event does. One way this is done is by reporting what the spirit is saying. This is the use of an apparently independent source, and is similar to politicians using phrases like "opinion polls say". It distances the speaker from the view expressed to suggest that it is not a personal opinion but facts that are being stated.

Goffman (1981) distinguished between the "animator" (person speaking) and the "author" (person who originated the idea being expressed). In other words, quoting someone else gives what is said more weight, though, in reality, it may be the speaker's own opinion.

Wooffitt described the three-turn sequence as a means for the medium to demonstrate paranormal ability:

T1 - question (or statement) implying or hinting at knowledge of the sitter

T2 - minimal acceptance by the sitter

T3 - attribution of now-accepted knowledge of a paranormal source (Wooffitt 2001 p356).

Wooffitt called this sequence "socially organized and collaboratively produced". He used this example of a sitting between a young woman and a psychic using tarot cards. They are discussing the sitter's plans to travel after graduation:

Medium: and are you going to the States? [example of T1]

Sitter: yeah [example of T2]

[later]

Medium: who's pregnant around you? [example of T3]

(Wooffitt 2001 p355).

The first statement is out of the blue and suggests the special knowledge of the medium (T1). A sceptic may suggest that it is a good guess. When the later statement about pregnancy is made, the sitter will attribute it as paranormal (whether it is true or not). A sceptic might say another good guess. Wooffitt was not interested in if it is true or not, but in the social interaction.

#### EXPERIMENTER EFFECTS

The "experimenter effect" has been described in psychology experiments generally as the process by which the experimenter unwittingly influences the participants to behave in a predictable or desired way. In parapsychology, the experimenter effect is used by sceptics and proponents of psychic ability to challenge findings that are contrary to their own views. Palmer (1986) dramatically described the experimenter effect as "the most important challenge facing modern parapsychology".

In other words, researchers who are sceptics of psychic ability find non-significant results in their experiments, and proponents of the ability find significant results.

Are the differences due to "experimenter psi" "with some particular psychic experimenters being able to influence the outcome of the study according to their desires and expectations" (Watt 2001 p140).

Richard Wiseman (a sceptic) and Marilyn Schlitz (a proponent) have attempted to resolve the problem of experimenter effects by collaborating on research into one psychic ability in particular - the "sense of being stared at" (Schlitz et al 2006). This is the idea that individuals know that somebody behind them is staring at them. It is not possible to see this, so it must be a psychic ability. Up to 90% of the general population reported feeling that someone was looking at them and turning round to find that it was so (Braud et al 1993).

The basic experiment to test this phenomenon (eg Coover 1913) involved an experimenter sitting behind a participant and staring at them or not, and the participant having to say which. Increasing sophistication over the twentieth century includes staring via one-way mirrors or CCTV systems, and physiological measures of participants' arousal. Schmidt et al's (2004) meta-analysis of such studies found a small, significant effect.

Both Wiseman and Schlitz have performed a number of studies on "remote detection of staring", as it is now called. Wiseman reported no significant results at

British psychological conferences and Schlitz significant results at US conferences (Schlitz et al 2006).

In 1996, they worked at Wiseman's lab (Wiseman and Schlitz 1997) with Wiseman sometimes staring or not staring at the participants via CCTV, and then Schlitz as the starrer. Only the latter produced a significant difference in participants' arousal between the staring and not staring conditions. The exact same procedure at Schlitz's lab produced the same difference in results (Wiseman and Schlitz 1999 reported in Schlitz et al 2006).

One possible explanation for the difference in results could be due to the pre-experiment interaction (greeting) between the experimenter and the participants. Schlitz et al (2006) designed their study to test this process with four conditions: (i) Wiseman greets the participants and, in the experiment, is the starrer; (ii) Schlitz greets and stares; (iii) Wiseman greets, but Schlitz stares; and (iv) vice versa of (iii). The participants were from Schlitz's institution and locality in the USA. Each session consisted of twenty stares and twenty no-stare trials each lasting 20 seconds. There was no significant differences at all found in the study.

The researchers, however, proposed it as a model for collaborative research in parapsychology (and psychology generally) between those with opposing theoretical views.

## EXPLAINING THE PARANORMAL SCIENTIFICALLY

Though many scientists are dismissive of paranormal experiences, there are some who try to explain them through scientific knowledge.

One area being explored is that of quantum theory in physics, particularly the quantum models of consciousness. Put simply, in quantum theory, particles do not have clearly defined properties, but rather they exist in contradictory states (known as quantum composition). Only when the particle is measured does it become one state (Merali 2007).

Manousakis (2007 quoted in Merali 2007) has translated this idea into two separate brain states: "potential consciousness" and "actual consciousness". During "potential consciousness" contradictory events can occur, like seeing both versions of an ambiguous figure at the same time. But in "actual consciousness", when the individual is consciously seeing, only one version of the figure is perceived.

Applying this idea to ESP, individuals may somehow have both normal and paranormal perception in a state like "potential consciousness", but only normal perception occurs during "actual consciousness". However, Manousakis's model is trying to explain consciousness not

ESP. Furthermore, quantum theory only applies at the atomic level (ie microscopic).

While Woolf and Hameroff (2001), discussing a quantum approach to visual consciousness, admitted that extreme cold is needed for quantum theory to apply.

Possibly the most interesting idea from quantum theory that could be applied to paranormal experiences is known as quantum entanglement: "in which spatially separated particle states are nonetheless connected or related" (Woolf and Hameroff 2001). This might be used to explain telepathy or remote viewing, for example.

## RELIGIOUS BEHAVIOUR

### RELIGIOUS BELIEFS

The focus of believers versus non-believers has been around paranormal or psychic ability, but what about religious beliefs? Are religious believers similar or different in their characteristics to believers in the paranormal, and how do they relate to non-believers in this area (table 4)?

1. Complete similarity in characteristics between religious and paranormal believers, and different to non-believers because of common features to belief.
2. Partial similarity in characteristics between religious and paranormal believers, and different to non-believers because of overlap of ideas.
3. Differences between religious and paranormal believers because religious beliefs can be antagonistic towards paranormal ideas.
4. Differences between religious and paranormal believers because they are independent sets of beliefs.
5. Differences between religious and paranormal believers, and with non-believers.
6. Similarities between religious believers and paranormal non-believers, and both different to paranormal believers.
7. Similarities between paranormal believers and non-believers, and both different to religious believers.

Table 4 - Possible relationships between religious and paranormal believers, and non-believers.

Aarnio and Lindeman (2007) performed a large-scale Finnish study to try and answer these questions. Over three thousand participants, mostly students, were recruited through an Internet questionnaire. It contained a number of tests to measure paranormal belief, religious belief, analytical and intuitive thinking, mystical experiences, values, neuroticism, negative life events, and attitudes of significant others towards the supernatural.

Analysis of the responses produced four distinct groups - religious believers only (n = 1157), paranormal believers only (n = 375), believers in both (n = 114), and sceptics of both (n = 1615).

The nature of the relationship between paranormal and religious beliefs was not straightforward. The stronger the paranormal beliefs, the more likely to have religious beliefs. But the stronger the religious beliefs, the less the paranormal beliefs. For double believers, the two sets of beliefs appeared to be unrelated.

There were similarities between the three believer groups which made them different to sceptics - less analytical thinking and more intuitive thinking; had witnessed more mystical experiences; more women; more positive attitudes towards the supernatural among significant others; and more neuroticism (table 5).

There were differences between the believer groups - paranormal and double believers had experienced more negative life events; religious believers had more conservative values and more self-transcendence values (eg helping others).

Overall, beliefs in the paranormal and religion are varied and show some similarities but also some differences. There is no simple distinction of believer (irrational) versus non-believer (rational) as sceptics would like to have.

	SCEPTICS	RELIGIOUS	PARANORMAL	DOUBLE
Analytical	3.94	3.84	3.79	3.79
Intuitive	3.17	3.41	3.52	3.74
Mystical	1.73	2.37	2.39	2.97
Other's positive attitude towards	1.99	2.45	2.42	2.86
Neuroticism	2.65	2.76	2.85	2.86
Negative life	2.74	2.88	3.20	3.77
Male/female (%)	62/45	25/39	10/12	2/4

(After Aarnio and Lindeman 2007)

Table 5 - Means of significant differences between believers and non-believers.



## RELIGIOUS EXPERIENCE

Religious experience is an area very personal to an individual, and difficult to study, particularly if researchers are highly sceptical of the reality of the experience. Here are two examples of how researchers approach aspects of the topic. The first example is a medical approach to the "miraculous", and the second is the application of neuroimaging to understanding religious experience.

### Psychogenic Purpura

In a number of religions, individuals who spontaneously bleed at certain places on their body without a physical wound are viewed as "miraculous", "supernatural", or pious. For example, in Christianity, it has been called stigmata where an individual bleeds from their palms, wrists or feet.

A medical explanation for this phenomena is known originally as auto erythrocyte sensitization purpura (Gardner-Diamond syndrome), or more recently as psychogenic purpura (Ratnoff 1989).

Yucel et al (2000) reported the case study of Ms.A, a 22-year-old Turkish widow who was diagnosed with Dissociative Identity Disorder (formerly known as Multiple Personality Disorder). She had spontaneous bleeding from her eyes and other areas of the body, and unexplained bruising. Importantly, despite having been in a car crash two years earlier, there was no physical cause for the bleeding. The most prominent feature was tears filled with blood. The researchers noted that "In Turkish culture, 'shedding bloody tears' is a very common idiom, and it is used both in daily language and literature to express extreme sorrow and emotional suffering" (p280).

This woman had experienced a lot of childhood abuse, and was unable to express her anger about it. Psychological tests (like Thematic Apperception Test) showed guilt, and ambivalence towards her family. It seems that in this case the bloody tears were a symbol of her unexpressed unhappiness.

This is an example of how anomalistic psychologists use scientific knowledge to explain apparently unexplainable events. The role of belief is again key in such situations because those who believe that such bleeding is miraculous will perceive it as a sign of piety, for example. Anomalistic psychologists prefer the scientific explanation of an extreme psychosomatic reaction.

Bleeding and bruising has also been induced by

hypnotic suggestion, and individuals with psychogenic purpura often have high hypnotisability (Ratnoff 1989).

## Spiritual Neuroscience

"Spiritual neuroscience" is "a field of science investigation at the crossroads of psychology, religion and spirituality, and neuroscience" (Beauregard and Paquette 2006) (see also Biello 2007). It involves the use of medical technology, like neuroimaging, to measure religious/spiritual/mystical experiences (RSMEs).

The aim is to understand the brain processes involved, not to prove or disprove the objective reality of the RSMEs (Saver and Rabin 1997). However, sceptics have argued that RSMEs are linked to temporal lobe epilepsy (eg Ramachandram and Blakeslee 1998).

The development of neuroimaging techniques has allowed researchers to scan individuals as they have a RSME. For example, Newberg et al (2003) used SPECT (single photon emission tomography) to measure the regional cerebral blood flow (rCBF) in a group of Franciscan nuns at prayer. Compared to the resting state, there was an increased rCBF in the prefrontal cortex, and parts of the parietal lobe.

Beauregard and Paquette (2006) used functional magnetic resonance imaging (fMRI) to measure blood oxygen level dependent (BOLD) signal changes in fifteen Carmelite nuns in Quebec. The individuals were scanned in three conditions over twenty minutes:

- Baseline - eyes closed resting state
- Control - participants asked to relive "most intense state of union with another human ever felt in their lives"
- Mystical - participants were asked to relive "most intense mystical experience ever felt in their lives as a member of the Carmelite Order".

This wording was used in the last condition because the nuns refused to "conjure up" the presence of God for an experiment. However, during qualitative interviews after the scanning, some of the nuns reported feeling the presence of God during the Mystical condition.

The Mystical condition produced brain activity in a number of areas not seen in the other two conditions, including the right temporal cortex, parietal lobe, and left prefrontal cortex. The important finding was that several brain regions were involved in the RSME, and the pattern was different to reliving the experience of human interaction (control condition).

This study contradicts the idea of the "G spot" (god spot), as named by the media, that there is a specific

area of the temporal lobe only involved in RSME. But the Beauregard and Paquette study was only reliving a RSME not trying to achieve it in the scanner.

## REFERENCES

Aarnio, K & Lindeman, M (2007) Religious people and paranormal believers: Alike or different? Journal of Individual Differences 28, 1, 1-9

Bartlett, F.C (1932) Remembering: A Study in Experimental and Social Psychology Cambridge: Cambridge University Press

Beauregard, M & Paquette, V (2006) Neural correlates of a mystical experience in Carmelite nuns Neuroscience Letters 405, 186-190

Biello, D (2007) Searching for God in the brain Scientific American Mind October/November

Blackmore, S.J & Moore, R (1994) Seeing things: Visual recognition and belief in the paranormal European Journal of Parapsychology 10, 91-103

Blagrove, M; French, C.C & Jones, G (2006) Probabilistic reasoning, affirmative bias and belief in precognitive dreams Applied Cognitive Psychology 20, 65-83

Braud, W; Shafer, D & Andrews, S (1993) Reactions to an unseen gaze (remote attention): A review with new data on autonomic staring detection Journal of Parapsychology 57, 376-390

Chadwick, P.K (1997) Schizophrenia: The Positive Perspective London: Routledge

Clancy, S.A et al (2002) Memory distortion in people reporting abduction by aliens Journal of Abnormal Psychology 111, 455-461

Coover, J.E (1913) The feeling of being stared at American Journal of Psychology 24, 570-575

Deese, J (1959) On the prediction of occurrence of particular verbal intrusions in immediate recall Journal of Experimental Psychology 58, 17-22

Forer, B.R (1949) The fallacy of personal validation: A classroom demonstration of gullibility Journal of Abnormal and Social Psychology 44, 118-123

French, C.C (2001) Alien abductions. In Roberts, R & Groome, D (eds) Parapsychology London: Hodder

French, C.C (2003) Fantastic memories Journal of Consciousness Studies 10, 6-7, 153-174

French, C.C & Wilson, K (2006) Incredible memories - how accurate are reports of anomalous events? European Journal of Parapsychology 21, 2, 166-181

Gabbert, F; Memon, A & Allan, K (2003) Memory conformity: Can eyewitnesses influence each other's memories for an event? Applied Cognitive Psychology 17, 533-543

Goffman, E (1981) Footing. In Goffman, E (ed) Forms of Talk Oxford: Blackwell

Harris, M (1986) Sorry You've Been Duped! The Truth Behind Classic Mysteries of the Paranormal London: Weidenfeld & Nicolson

Hopkins, B; Jacobs, D.M & Westrum, R (1992) Unusual Experiences Las Vegas: Bigelow Holding Corporation

Houran, J; Wiseman, R & Thalbourne, M.A (2002) Perceptual-personality characteristics associated with naturalistic haunt experiences European Journal of Parapsychology 17, 17-44

Hyman, I.E & Kleinknecht, E.E (1999) False childhood memories: Research, theory and applications. In Williams, I.M & Banyard, V.L (eds) Trauma and Memory Thousand Oaks, CA: Sage

Hyman, R (1985) A critical historical overview of parapsychology. In Kurtz, P (ed) A Skeptic's handbook of Parapsychology Buffalo, NY: Prometheus

Irwin, H.J (1991) A study of paranormal belief, psychological adjustment and fantasy proneness Journal of the American Society for Psychical Research 85, 317-331

Irwin, H.J (1993) Belief in the paranormal: A review of the empirical literature Journal of American Society for Psychical Research 87, 1-39

Irwin, H.J (2004) An Introduction to Parapsychology Jefferson, NC: McFarland

Iverson, J (1977) More Lives Than One? London: Pan Books

Klass, P.J (1997) Additional comments about the

"Unusual Personal Experiences Survey". In Frazier, K et al (eds) The UFO Invasion Amherst, NY: Prometheus

Lawrence, T et al (1995) Modelling childhood causes of paranormal belief and experience: Childhood trauma and childhood fantasy Personality and Individual Differences 19, 209-215

Loftus, E.F (1979) Eye Witness Testimony Canbridge, MA: Harvard University Press

Loftus, E.F (2001) Imagining the past Psychologist 14, 584-587

Loftus, E.F & Pickrell, J.E (1995) The formation of false memory Psychiatric Annals 25, 720-725

Mazzoni, G.A et al (2001) Changing beliefs about implausible autobiographical events: A little plausibility goes a long way Journal of Experimental Psychology: Applied 7, 51-59

Merali, Z (2007) I'm quantum, therefore I am New Scientist 20/10, 10-11

Newberg, A et al (2003) Cerebral blood flow during meditative prayer: Preliminary findings and methodological issues Perceptual and Motor Skills 97, 625-630

O'Keefe, C & Wiseman, R (2005) testing alleged mediumship: Methods and results British Journal of Psychology 96, 165-179

Orne, M.T (1979) The use and misuse of hypnosis in court International Journal of Clinical and Experimental Hypnosis 27, 311-341

Palmer, J (1986) ESP research findings: The Process approach. In Edge, H.I et al (eds) Foundations of Parapsychology London: Routledge & Kegan Paul

Pizzagelli, D et al (2000) Brain electric correlates of strong belief in paranormal phenomenon. Intracerebral EEG source and regional Omega complexity analyses Psychiatry Research: Neuroimaging 100, 139-154

Pratt, J.G & Birge, W.R (1948) Appraising verbal test material in parapsychology Journal of Parapsychology 12, 236-256

Pynoos, R.S & Nader, K (1989) Children's memory and proximity to violence Journal of the American Society for Psychical Research 28, 236-243

Ramachandran, V.S & Blakeslee, S (1998) Phantoms in the Brain New York: William Morrow

Ratnoff, O.D (1989) Psychogenic purpura (autoerythrocyte sensitization): An unsolved dilemma American Journal of Medicine 87, 16-21

Roe, C.A (1998) Belief in the paranormal and attendance at psychic meetings Journal of the American Society for Psychical Research 92, 1, 25-51

Roe, G.A (1999) Critical thinking and belief in the paranormal: A re-evaluation British Journal of Psychology 90, 85-98

Saver, J & Rabin, J (1997) The neural substrates of religious experience Journal of Neuropsychiatry and Clinical Neuroscience 9, 498-510

Schlitz, M; Wiseman, R; Watt, C & Radin, D (2006) Of two minds: Sceptic-proponent collaboration within parapsychology British Journal of Psychology 97, 313-322

Schmeidler, G.R (1945) Separating the sheep from the goats Journal of American Society for Psychic Research 39, 47-49

Schmidt, S et al (2004) Distant intentionality and the feeling of being stared at: Two meta-analyses British Journal of Psychology 95, 235-247

Thalbourne, M.A (1998) Transliminality: Further correlates and a short measure Journal of the Society for Psychical Research 92, 402-419

Thalbourne, M.A & Delin, P.S (1993) A new instrument for measuring the sheep-goat variable: Its psychometric properties and factor structure Journal for the Society for Psychic Research 59, 172-186

Tobacyk, J & Milford, G (1983) Separating the sheep from the goats Journal of Personality and Social Psychology 44, 1029-1037

Watt, C (2001) Paranormal cognition. In Roberts, R & Groome, D (eds) Parapsychology London: Hodder

Wilson, K & French, C.C (2006) The relationship between susceptibility to false memories, dissociativity, and paranormal belief and experience Personality and Individual Differences 41, 1493-1502

Wilson, S.C & Barber, T.X (1983) The fantasy prone personality: Implications for understanding imagery,

hypnosis, and parapsychological phenomena. In Sheikh, A.A (ed) Imagery: Current Theory, Research, and Application New York: Wiley

Wiseman, R & Greening, E (2005) "It's still bending": Verbal suggestion and alleged psychokinetic ability British Journal of Psychology 96, 115-127

Wiseman, R & Morris, R.L (1995) Recalling pseudo-psychic demonstrations British Journal of Psychology 86, 113-125

Wiseman, R & Schlitz, M (1997) Experimenter effects and the remote detection of staring Journal of Parapsychology 61, 197-207

Wiseman, R & Watt, C (2004) Measuring superstitious belief: Why lucky charms matter Parapsychological Association Convention 2004: Proceedings of Presented Papers 291-298

Wiseman, R & Watt, C (2006) Belief in psychic ability and the misattribution hypothesis: A qualitative review British Journal of Psychology 97, 323-338

Wiseman, R; Greening, E & Smith, M (2003) Belief in the paranormal and suggestion in the seance room British Journal of Psychology 94, 285-297

Wooffitt, R (2001) Raising the dead: Reported speech in medium-sitter interaction Discourse Studies 3, 351-374

Woolf, N.J & Hameroff, S.R (2001) A quantum approach to visual consciousness Trends in Cognitive Sciences November, 472-478

Yucel, B; Kiziltan, E & Aktan, M (2000) Dissociative identity disorder presenting with psychogenic purpura Psychosomatics May-June, 279-281

## PSYCHOLOGY TEACHERS UPDATE

3 times per year: Jan/May/Sept  
ISSN: 1478-4548

£20 p.a  
(or £7 per issue)

Payment : Cheques payable to "Kevin Brewer"

Send to: Orsett Psychological Services  
PO Box 179  
Grays  
Essex  
RM16 3EW

NAME :

ADDRESS :

TELEPHONE :

CONTACT NAME (IF INSTITUTION) :

SUBSCRIPTION

ANNUAL :

BEGINNING WITH NUMBER :

SINGLE ISSUE(S) :

NUMBER(S) :



ORSETT PSYCHOLOGICAL SERVICES  
PO Box 179, Grays, Essex RM16 3EW  
orsettpsychologicalservices@phonecoop.coop

Price List

PERIODICALS

ORSETT PSYCHOLOGICAL REVIEW  
A Journal about the Psychology of  
Everyday Life

Twice per year £10 p.a  
June/December (or £5 per issue)

ISSN: 1474-0311

2001: Nos 1-4

2002: Nos 5-8

2003: Nos 9-12 (Back issues 2001-3 £5 each)

2004: Nos 13-14

2005: Nos 15-16 (Back issues 2004-5 £10 each)

2006: Nos 17-18

2007: Nos 19-20

ORSETT BRIEFING PAPERS FOR PSYCHOLOGISTS

ISSN: 1740-4444 £1.50 each

No.1 - Emile Durkheim

No.2 - Basic Genetics

No.3 - Quasi-Experimental Designs

No.4 - Clinical Trials

No.5 - Basic Pharmacokinetics

No.6 - Post-modernity and Globalisation

No.7 - Epidemiology

No.8 - Stratification

No.9 - Symbolic Interactionism

No.10 - Ethnomethodology

No.11 - Basics of the Immune System

No.12 - Feminist Theories

No.13 - Hobbes, Rousseau and Locke

PSYCHOLOGY INFORMATION FOR STUDENTS

ISSN: 1743-3851 £3.00 each

March/September

No.1: March 2004

What really happened - the "Bobo" doll experiments

Contribution of cognitive neuropsychology to  
understanding cognitive processes

Ethical issues in non-experimental research

Hegemony (Antonio Gramsci)

No.2: September 2004

What really happened - Bowlby's forty-four juvenile thieves

Experimenter effects: the power of expectation

Problems with research into gender differences

No.3: March 2005

The use of the field experiment: a classic example from New York

The use of volunteers in psychological research

Do early childhood relationships set the pattern for adult relationships?

No.4: September 2005

The use of the adoption study method with schizophrenia

An introduction to the social construction of aggression

Global Workspace Theory of consciousness

No.5 - March 2006

What really happened: Bruce/Brenda/David Reimer and gender development

The visual system: A brief introduction

No.6: September 2006

Culture Bound Syndromes and the Dhat Syndrome

Applied Cognitive Psychology: Attentional Mistakes

The Social Network of Adults with Learning

Disabilities: The Importance of Opportunities

No.7: March 2007

What Really Happened: The Case Study of H.M

Treating Sex Offenders: A Brief Introduction to Behavioural and Cognitive-Behavioural

Treatments

No.8: September 2007

What Really Happened: Henri Tajfel and Intergroup Conflict

Do Non-Human Animals have Culture?

ORSETT ACADEMIC MONOGRAPHS

No.1 SOCIAL CONSTRUCTIONISM: A NEW FORCE IN PSYCHOLOGY?

71 pages

£6-50

ISBN: 978- 0-9540761-0-8

Published June 2001

No.2 ETHICAL ISSUES FOR THE STUDY OF HUMAN BEHAVIOUR BY PSYCHOLOGISTS

45 pages

£5-00

ISBN: 978-0-9540761-2-2

Published November 2001

- No.3 LABEL AND DRUG: TWO CRITICAL ESSAYS ON BIOLOGICAL  
PSYCHIATRY  
34 pages £5.00  
ISBN: 978-0-9540761-8-2 Published April 2002
- No.4 PSYCHOLOGY OF COMPLIANCE AND SALES TECHNIQUES  
13 pages £2.50  
ISBN: 978-0-9540761-9-1 Published November 2002
- No.5 MEASURING STUDENT EVALUATION OF TEACHING  
EFFECTIVENESS: METHODS AVAILABLE  
12 pages £3.00  
ISBN: 978-1-904542-08-5 Published June 2003  
(Available to download at [www.archive.org](http://www.archive.org))
- No.6 DEPENDENT PERSONALITY DISORDER AND OTHER PERSONALITY  
DISORDERS: A CRITICAL INTRODUCTION  
40 pages £6.00  
ISBN: 978-1-904542-13-1 Published September 2003
- AN INTRODUCTION TO PARAPSYCHOLOGY: OPEN LEARNING  
UNIT  
50 pages £5-00  
ISBN: 978-0-9540761-1-5 Published August 2001
- RESEARCH METHODS IN CLINICAL PSYCHOLOGY, PSYCHIATRY,  
AND THE MENTAL HEALTH PROFESSIONS  
161 pages £8-00  
ISBN: 978-0-9540761-3-1 Published February 2002
- PSYCHOLOGY OF ATTITUDES AND ATTITUDE CHANGE:  
A BRIEF INTRODUCTION  
13 pages £3-50  
ISBN: 978-1-904542-06-3 Published June 2003
- PSYCHOLOGY OF SOCIAL COGNITION: A BRIEF INTRODUCTION  
15 pages £3-50  
ISBN: 978-1-904542-07-0 Published June 2003
- PSYCHOLOGY OF PREJUDICE: A BRIEF INTRODUCTION  
14 pages £3.50  
ISBN: 978-1-904542-09-4 Published June 2003
- RESEARCH METHODS USED IN COMPARATIVE PSYCHOLOGY  
22 pages £4.00  
ISBN: 978-1-904542-12-4 Published September 2003
- PSYCHOLOGY OF OBJECT AND PATTERN RECOGNITION:  
A BRIEF INTRODUCTION AND REFLECTIONS  
14 pages £3.00  
ISBN: 978-1-904542-16-2 Published February 2004

PSYCHOLOGY OF ATTENTION: METHODOLOGY AND  
 BRIEF INTRODUCTION  
 9 pages £3.00  
 ISBN: 978-1-904542-17-9 Published March 2004

PSYCHOLOGY OF FACE RECOGNITION: A BRIEF INTRODUCTION  
 15 pages £3.00  
 ISBN: 978-1-904542-19-3 Published March 2005

ISSUES IN CLINICAL AND ABNORMAL PSYCHOLOGY NO.1  
 35 pages £5.00  
 ISBN: 978-1-904542-18-6 Published November 2004

ISSUES IN CLINICAL AND ABNORMAL PSYCHOLOGY NO.2  
 38 pages £5.00  
 ISBN: 978-1-904542-22-3 Published March 2006

APPLICATIONS AND EXAMPLES OF RESEARCH METHODS IN  
 PSYCHOLOGY  
 42 pages £6.00  
 ISBN: 978-1-904542-24-7 Published December 2006

MORE APPLICATIONS AND EXAMPLES OF RESEARCH METHODS  
 IN PSYCHOLOGY  
 40 pages £6.00  
 ISBN: 978-1-904542-2-6-1 Published February 2007

EVEN MORE APPLICATIONS AND EXAMPLES OF RESEARCH  
 METHODS IN PSYCHOLOGY  
 49 pages £6.00  
 ISBN: 978-1-904542-28-5 Published December 2007

ORSETT TECHNICAL REPORTS SERIES A

1. Student evaluation of teaching effectiveness: an  
 introduction  
 ISBN: 978-0-9540761-4-6 36 pages £5.00
2. Student evaluation of teaching effectiveness:  
 methodological issues - Part 1  
 ISBN: 978-0-9540761-5-3 37 pages £5.00
3. Methodological issues with student evaluation of  
 teaching effectiveness - Part 2  
 ISBN: 978-0-9540761-6-0 51 pages £5.00
4. Construction of Birmingham Overseas Students Teaching  
 Evaluation Questionnaire (BOSTEQ)  
 ISBN: 978-0-9540761-7-7 20 pages £4.00

All Published March 2002; Set of 4 = 15.00

ORSETT TECHNICAL REPORTS SERIES B  
 by Daniel Allsopp

1. A Review of Knowledge Representation and Specification  
 Methodologies for Formatting Knowledge for Use in  
 Computer Agent Programs  
 ISBN: 978-1-904542-10-0 51 pages £12.00  
 Published September 2003

# COMPARATIVE PSYCHOLOGY BY ANIMALS

- NO.1 - LIONS  
18 pages £2.50  
ISBN: 978-1-904542-00-1 Published December 2002
- NO.2 - CRICKETS  
15 pages £2.50  
ISBN: 978-1-904542-01-8 Published December 2002
- NO.3 - FROGS  
17 pages £2.50  
ISBN: 978-1-904542-02-5 Published January 2003
- NO.4 - ROBINS  
23 pages £2.50  
ISBN: 978-1-904542-03-2 Published January 2003
- NO.5 - STICKLEBACKS  
19 pages £2.50  
ISBN: 978-1-904542-04-2 Published January 2003
- NO.6 - ALBATROSS  
15 pages £2.50  
ISBN: 978-1-904542-11-7 Published September 2003
- NO.7 - RED DEER  
27 pages £2.50  
ISBN: 978-1-904542-14-8 Published September 2003
- Set of seven = 15.00

## ANSWERS IN PSYCHOLOGY

- No.1 REDUCTION AND CONTROL OF HUMAN AGGRESSION  
33 pages £5.00  
ISBN: 978-1-904542-05-6 Published February 2003
- No.2 AN INTRODUCTION TO PSYCHOLOGY OF TERRORIST AND  
SUICIDE TERRORIST  
33 pages £7.00  
ISBN: 978-1-904542-15-5 Published December 2003
- NO.3 NATURE AND NURTURE DEBATE ON HUMAN SEXUAL  
ORIENTATION  
59 pages £7.00  
ISBN: 978-1-904542-23-0 Published December 2006
- NO.4 THE RELATIONSHIP BETWEEN ATTITUDES AND BEHAVIOUR,  
AND CONDOM USE  
44 pages £6.00  
ISBN: 978-1-904542-25-4 Published December 2006

E-BOOK

ASPECTS OF SLEEP

74 pages

£10.00

ISBN: 978-1-904542-27-8

Published June 2007

UPDATES AND IDEAS FOR A LEVEL PSYCHOLOGY

No.1 - 10 Articles for PYA4: Social Cognition

66 pages

Published January 2006

ISBN: 978-1-904542-20-9

Price £8.00

1. Attributional bias: Ideas and applications
2. Prejudice and discrimination against  
homosexuality
3. Forms of prejudice and discrimination
4. Theories and research on intergroup conflict  
since Tajfel
5. Different types of prejudice and discrimination:  
Individuals with facial disfigurement
6. Social construction of racism
7. Individuals with mental illness, stigmatization,  
and problems of reducing prejudice
8. Prejudice and crime: physical attacks and  
harassment
9. Reducing prejudice: Some recent ideas
10. Sexism and female DJs

No.2 - 10 Articles for PYA4: Relationships, and Pro- and  
Anti-Social Behaviour

76 pages

Published January 2006

ISBN: 978-1-904542-21-6

Price £8.00

1. Cross-cultural studies and research on  
relationships
2. Understudied relationships: Adults with learning  
disabilities
3. Understudied relationships: Women with physical  
disabilities and romantic relationships
4. Understudied relationships: "Prison romance"
5. Discourse analysis and marriage
6. Dark side of intimate relationships
7. Women's best friendships
8. Evolutionary psychology and relationships: Some  
recent research
9. Some thoughts on the social construction of  
aggression
10. A synthesis model to explain aggression